IN THE CLAIMS

Please amend claims 1, 6-11, and 17-26.

Please enter the pending claims as follows:

1. (Currently Amended) A broad-angle multilayer (ML) mirror comprising a multiple layer structure to provide uniform reflectivity over a wide range of incident angles with small phase shifts, the structure comprising 36 bi-layers wherein Molybdenum has a thickness of 2.4 – 11.3 nm and Silicon has a thickness of 3.5 – 10.4 nm.

2. (Original) The ML mirror of claim 1 wherein the ML mirror provides an acceptance angle in excess of 20° without a significant loss of reflectivity.

3. (Original) The ML mirror of claim 2 wherein the loss of reflectivity is approximately 17%.

4. (Original) The ML mirror of claim 1 wherein the ML mirror increases the relative phase shift.

5. (Original) The ML mirror of claim 1 wherein the ML mirror comprises a 13.5nm central wavelength.

6. (Currently Amended) The ML mirror of claim 1 wherein the structure comprises:

~~a substrate layer; and~~

~~a plurality of bi-layers to provide~~ a 13.5nm central wavelength.

7. (Currently Amended) The ML mirror of claim 1 [6] wherein the ~~plurality of~~ bi-layers in the structure have a variable thickness.

8. (Currently Amended) The ML mirror of claim 1 [6] wherein the ~~plurality of~~ structure includes additional bi-layers ~~include thirty-six bi-layers~~.

9. (Currently Amended) The ML mirror of claim 8 [6] wherein the additional bi-layers in the structure are comprised of Mo/Si bi-layers.

10. (Currently Amended) The ML mirror of claim 8 [6] wherein the additional bi-layers in the structure have a variable thickness ~~are comprised of Mo/Be bi-layers~~.

11. (Currently Amended) An optical system having an extreme ultra-violet (EUV) radiation source, the system comprising:

a mask;

a wafer; and

a plurality of reflecting surfaces for imaging the mask on the wafer, wherein one or more of the plurality of reflecting surfaces includes a broad-angle multilayer (ML) mirror having a multiple layer structure to provide uniform reflectivity over a wide range of angles with small phase shifts, the ML mirror comprising 36 bi-layers wherein Molybdenum has a thickness of 2.4 – 11.3 nm and Silicon has a thickness of 3.5 – 10.4 nm.

12. (Original) The system of claim 11 wherein the plurality of reflecting surfaces comprises six mirrors.

13. (Original) The system of claim 11 wherein the ML mirror provides an acceptance angle in excess of 20° without a significant loss of reflectivity.

14. (Original) The system of claim 13 wherein the ML mirror has a loss of reflectivity of approximately 17%.

15. (Original) The system of claim 11 wherein the ML mirror increases the relative phase shift.

16. (Original) The system of claim 11 wherein the ML mirror comprises a 13.5 nm central wavelength.

17. (Currently Amended) The system of claim 11 wherein the ~~mirror~~ structure comprises:

~~a substrate layer; and~~

~~a plurality of bi-layers to provide~~ a 13.5nm central wavelength.

18. (Currently Amended) The system of claim 11 [17] wherein the ~~plurality of~~ bi-layers have a variable thickness.

19. (Currently Amended) The system of claim 11 [18] wherein the ~~plurality of bi-layers include~~ structure includes more than thirty-six bi-layers.

20. (Currently Amended) An optical system having an extreme ultra-violet (EUV) radiation source, the system comprising:

a mask;

a wafer; and

a plurality of reflecting surfaces for imaging the mask on the wafer, including:

~~a first mirror;~~

~~a second mirror,~~

a ~~third~~ mirror having a multiple layer structure to provide uniform reflectivity over a wide range of angles with small phase shifts, the mirror comprising 36 bi-layers wherein Molybdenum has a thickness of 2.4 - 3.7 nm except for a thicker bi-layer 1 nearest substrate and Silicon has a thickness of 3.5 - 4.1 nm except for thicker bi-layers 3, 5, and 15 [;]

~~a fourth mirror;~~

~~a fifth mirror; and~~

~~a sixth mirror~~.

21. (Currently Amended) The system ~~mirror~~ of claim 20 wherein the ~~third~~ mirror provides an acceptance angle in excess of 20° without a significant loss of reflectivity.

22. (Currently Amended) The system of claim 21 wherein the ~~third~~ mirror has a loss of reflectivity of approximately 17%.

23. (Currently Amended) The system ~~mirror~~ of claim 20 [22] wherein the ~~third~~ mirror comprises a 13.5nm central wavelength.

24. (Currently Amended) The system of claim 20 wherein the ~~third mirror~~ structure comprises:

~~a substrate layer; and~~

~~a plurality of bi-layers to provide~~ a 13.5nm central wavelength.

25. (Currently Amended) The system of claim 20 [24] wherein the ~~plurality of~~ bi-layers have a variable thickness.

26. (Currently Amended) The system of claim 20 [24] wherein the ~~plurality of bi-layers include~~ structure includes more than thirty-six bi-layers.